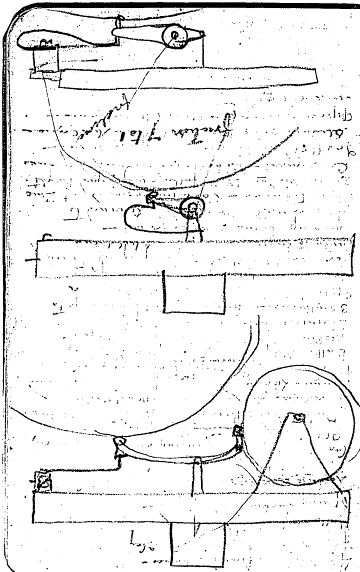
Notebook, PN-09-07-20

This pocket notebook was used by Edison during 1909 and 1910 for notes on experimental work and other tasks to be performed at the laboratory. Many of the experimental entries pertain to phonographs. Included are notes about various reproducers, possible amplification devices, phenolic resins and other materials for record blanks, cabinet design, and recording conditions. Also included are references to phonograph marketing, musicians, litigation, patents, and sales. Among the employees mentioned in connection with these matters are Jonas W. Aylsworth, Frank L. Dyer, William Goodwin, Walter H. Miller, Alexander N. Pierman, and Peter Weber. There is also a reminder to send private investigator Joseph F. McCoy to the Victor Talking Machine Co. works in Camden, New Jersey, and the American Graphophone Co. works in Bridgeport, Connecticut. Other entries indicate the number of musical selections from 1902 to September 1910, along with the amount of sales to March 1910. One notation providing the names of musicians is in an unidentified hand. In addition, the book contains notes on electric vehicles, storage batteries, cement production, and motion picture rentals. Employees mentioned in regard to these concerns include John R. Anderson, Jr., Herman E. Kiefer, Walter S. Mallory, and William H. Mason. There are also entries pertaining to Edison's life insurance, the transfer of property to Mina Miller Edison, and the use of space at the laboratory. The front flyleaf has been used upside down and the first page of notes has been written over an erased but partially legible autobiographical entry. The pages are unnumbered. Approximately 100 pages have been used.

Pleasant Valley
Center hill or Hempstead
Hartland or East Hartland
N Hartland or - N Granby
Granville or Southwick - (Mundale)
~~Wes~~ Westfield
East Hampton - Northampton
Amherst —
Pelham Cooleyville New Salem Athol

Tully - S Royalston Waterville Royalston
State Line Rand. Thomas Westringe
E Jaffrey Hadley Noone Peterboro
Hancock Hillsboro Hillsborobridge
Heniker Hopkinton - Diamond Hill
Concord

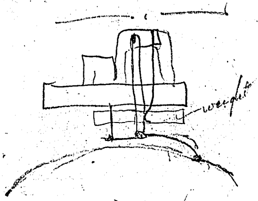
PN-09-07-20


fraction of total height
fraction

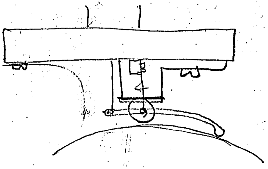
New Boston –
Otis –
Huntington

2)178
89
267

168
270

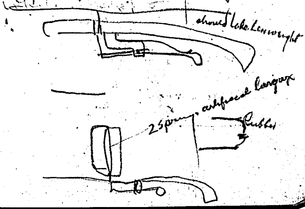


~~EDISON~~
~~STORAGE BATTERY~~
~~This battery is now made in quantity - Its invention is an EPOCH in the application of Electricity to Vehicle traffic~~
~~Send for Catalogue~~
~~Edison Storage Battery Co~~
~~Orange N J~~

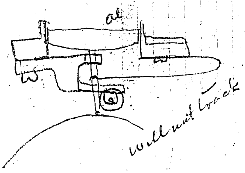


That big Chrondite dyke at Raub, get direction & pbly good Ca extends alongside it way down in Valley Cahart get Options whats hill at Powder House, Riddles & along dyke down in Valley

Mix some B1OH with grew & make group. Take up costs 1/2 record with Coast clerk


should take Lessweight
2 spring artificial larynx
Rubber

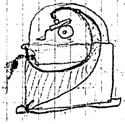
air compressor Turbine - see Curtis.
1050 Litre $Na\,SO_4$ 57 grms metal per litre
1250 " $NaOH$, 10%—

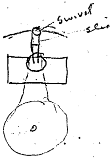

at
W
W
will not track

As Fred Ott Dia 4 times area probably mouth piece should be 4 times area ie double diameter for loud but perhaps not for quality

Try some of poor nego RA with Bi flake —

~~Work on hornless machine for Standard Home etc~~


Standard
Hornless

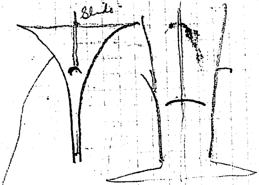

swivel
screw

John Ott

Make a harp with Piano sounding board or Tuning fork box —

~~Write Spice if he will do some work for me —~~

Try high chlorinated [illegible]
sub in film + use of it bromo
possibly in Bromo Camphor —



~~Harry Miller get for Mr. Edison~~
~~Notes & accounts of [illegible]~~
~~with W. Wilson [illegible] name on~~
~~Gets Bills [illegible] to date~~
~~Cement on hand +~~

Split a funnel & back it
up with brass for expansion
on inside —

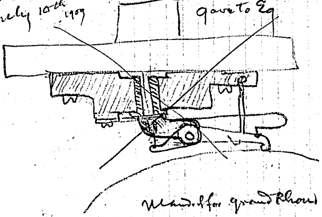
Goldstein to take up © Reg
up make NaOH, + dry it
No wash 1/4 1/2 3/4 wash —
+ various dryings. after Daly
gets them Reg up to dry NaOH
[illegible]

~~Eggleston design three~~
~~drawings to go in big one &~~
~~also the friction lever.~~

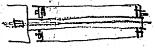
~~Ask Case about Diphenyl fluorene~~
~~+ Acenaphthene amounts,~~

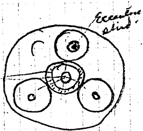
~~Write DeHaen for 100 lbs~~
~~1st Sample of Dinitrobenzol~~
~~for test we purify here —~~

July 10th 1909

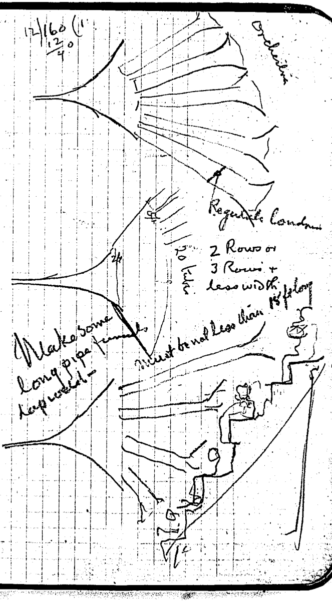


Mandrel for grand Phono




Eccentric stud
Drive shaft
Tube stand
Wheel bearing hardened

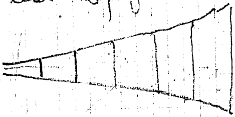
~~Legal dept How about Corbin patent of a reproducer adapted to reproduce from the 200 thread in Combn with the record — also of a new type reprodr also combn with the 200 of a reprodr capable of tracking — Since we are now free from N York Co why not sue Cleveland people & also Indestructables outstanding process for records — Have legal dept search & prepare —~~


12)160(1
12
40
Orchestra
Regulate Condns
24
20 tubes
2 Rows or
3 Rows + less width
must be not less than 18 ft long

Make some long pipe funnels keep worked —

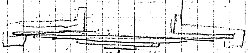
Try Expmt of Loss at 15 ft distance
throw 4 or 5" tube open both end
& not less than 10 ft long

Move Hamm & Small down in
drafting room - prepare top
room for Music recording
Walter fix me up a recording
outfit of V. [illegible]
to test long [illegible]



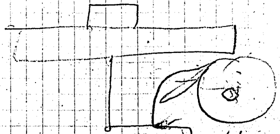
wood - 75% openings
~~a set of~~ Holes not
in Line - to bring
tone [illegible] to 1 size
around that -

Glue Map 1 to 3 gives best for not
sticky 1 to 2 best for thin [illegible]



Idea [illegible]
[illegible] the
[illegible] 3/4 to 1 or 1 1/4"
[illegible]

John Lauria & Son
Musicians
252 Bank St Newark N J
Music furnished [illegible]

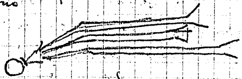


Have ye a big idea

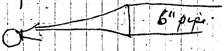
Holland to take 8 plates
& charge them in Large
Crock etc under same
Conditions as small tubes
then assemble in cells

~~Walter Archer make some
groups of heavy loading
wt with Single Lamps
if we havnt already got
them — this thus crushes
easier it will give a
lighter loading wt
on single Lamps & we
get ~~more~~ as much Ni in with
this than if 739 was
used with double lamps
lower capacity Rogers single
lamp cells probably due to
lower loading wt~~

with Conduit funnels —
18 ft long can probably
use a very small funnel on
phono



all ending in an end inch dia
just within a small funnel 6 inches
long even less

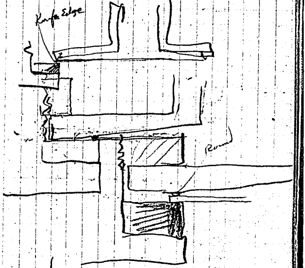


~~Walter Make 48 green 4 f
with Double Lamps —
with Reg & also 1164 — or
other heavy loading wt
ditto 48 & Single Lamps
with heavy loading wt~~

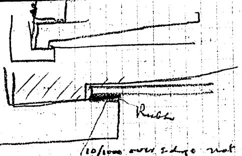
~~Holland lake cell & —~~
~~fill 20 grms Li, [illegible] equiv to 2 grms~~
~~then 2nd charge add 20~~
~~Except 2nd charge & keep~~
~~adding 15 until 120~~
~~added —~~

~~ditto Saturated KOH 21 with~~
~~Li — then add at each~~
~~charge 25 grm till get~~
~~120 — another cell~~
~~till 150 —~~

Patent Tylor Chloro wap
when OK [illegible]
& MP lowers



~~prevent the sound from the~~
~~felt hammer from being~~
~~Conducted through the~~
~~wood hammers by~~
~~use of Sand or Sponge~~



10/1000 over edge not fastened let weight pull it down

Heavy loading isn't is due to large porosity hence easy crushing if dried in Drum its same Talc porosity but being finer crushes dont crush well —
Hence to get advantage of quick drying use extra Na_2SO_4 & mix it [illegible] be sure & try heavy loading but green kiln single kiln see if it dont come right —

Put the black ~~ Methyl Cellulose mix on Cement Paint —
Hot Cement in boiling water also Red hot Cement in boiling water see if can get colloidally

Mix pigments, Ultramarine, red for roof & paint

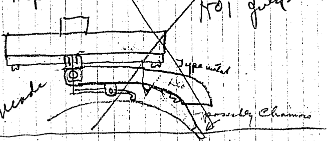
Urge Keefer Mason Constant feed Chalk & Kiln & with blower saving the coal — & compressed air - draft process —

We have an Extra fine grinder in Chalk plant that we will never use look up something that we can grind fine that is saleable —

Reproducers

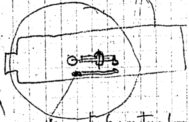
No 1 July 20 1909

Made


Type metal
possibly Chamois

No 2

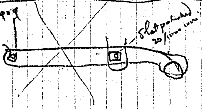
July 20 1909



Spring to have two knocking button only one connect to chin

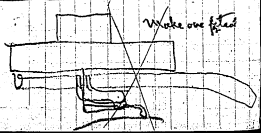
No 3 July 20th 1909

Made


Slot polished
20/1000 inch

No 4

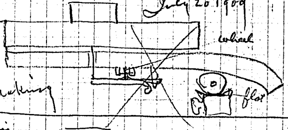
Make one fitted



July 20 1909

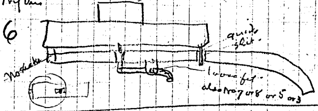
5

Making



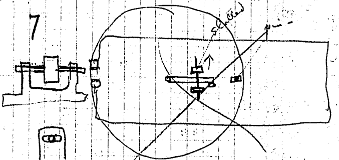
Try This

6

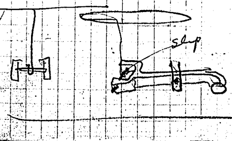

guide slit
loose fit
Notched

also No 7 or 8 or 5 or 3

7


slotted
pin

8



9

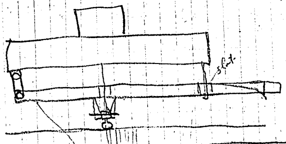
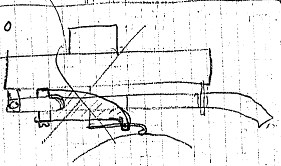
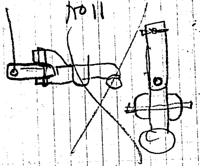


Fig 10

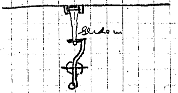


No 11

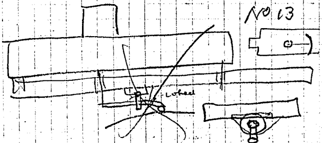


No 6 cot

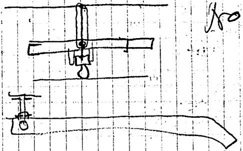
No 12



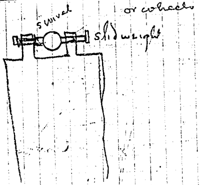
No 13



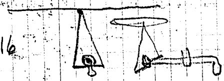
No 14



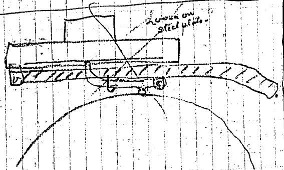
15


swivel
or wheels
slid weight

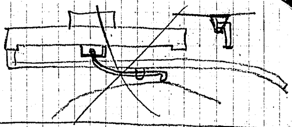
No 16



17
+ 18


screw on steel plate

18



Ask Mallory for last scrap
Edison + proof —

David S. Rivkin
39 Center St
New Haven
Conn.

Mrs. Rowland will speak for us.

Zimbalist - Violinist

Frances Rogers - Singer

Leo Schulz - Cellist -
Traumerei - plays beautifully

Have estimate lowest cost
½ size [illegible] —

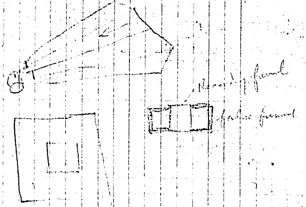
~~Write Keefer of low lime Cement rock dont melt easier & combines with lime better also if Fe in low lime rock makes it even more fusible — Eo . . . Si~~
~~[illegible]~~

H. Hagwood tube sq. made to test against Quartz tube
~~[illegible]~~ cloth to stop yellow [illegible]
[illegible] using [illegible]
[illegible] cloth — Square Canvas
also bound with [illegible]
To be [illegible]
~~[illegible]~~

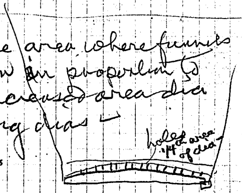
Have adjustable flat Reflex [illegible]
[illegible] Copper 2¼ 2

Benzphenol —

Nitromethal bromobenzene
[illegible]
[illegible] — [illegible] [illegible]

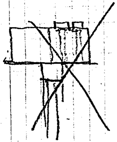


Make area where funnels go on in proportion to ~~increased~~ area dia on big dias —
also



Put blackeyed Susan or
Case on Dehydrating
Ferrous Sulphate

Put up 6 tubes 1181 Ra
with 159 f Bi flk
Single Lamp + 4.2 24-
dip 4.4 48



Sept 7 1910

Make tube with Cadmium
Hydrate & flake also metallic
Cd, ~~for~~ reduced by Zn
or H + flake,

See if Layt Dept got
appr ready for rectifier
& also both of 1 current
also regulating by
magnet & by cutting
off some of Commutator
also Vibrator device
for rectifying

Make tube flat flake
& tubes with Cadmium
Metal reduced by H
by Zn & Electrolytically
with without flake

with & without Hg
also with Bi OH.
also Cadmium Ox + Hg
also Hydrated Ox
flake [illegible] & Bi & also Hg

~~Design new [illegible] knob
wheel —~~

~~see proof New Ad for
Coming Week —~~

~~Ornament the new
$60. Cabinets —~~

Take up making of
steel - Mahogany finish

Take out green & flake
from some of tubes that
are bad & use glycerine
etc & separate use
little HCl - Make up
new tubes —

~~also take some
very old tubes Reg
that run 1000 &
Treat glycerine & KOH
& sep flake & green
& make new tubes
see if OK —~~

~~See if B E2 has tried
Rubber Sponge & appendage on [illegible]~~

~~If bubble indicator tried
on A8~~

~~Make instead of Fe an Antimony tube with & without flake, reduced by H, from the Oxide — possibly mixing Sb with Fe it will take care of the H as antimonuretted Hydrogen, & this may be the reason we got high results with Fe containing Sb —~~

~~See if Johns finished drawings for 1/8 tube machine Hurry it up —~~

~~Henry 20 cell Delivery wagons~~

~~Get Record of Water gap runs for Advertisements~~

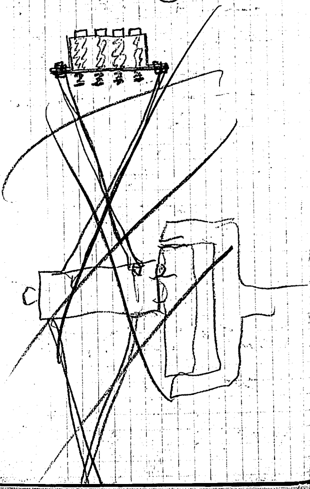
Consolidate balance of Outings in 1 or 2 autos to save Expense —

~~Lansden - sell by Demonstration —~~

~~Write Anderson about NY chg prices & Lieb —~~

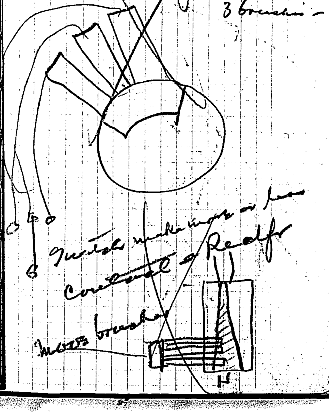
~~Put Aluminum bar in dipping test cans at bottom w/ Compounds to stop Electrolysis~~

Best form



ask Goodwin to have
wagonman when they
run into capacity already
got plans to ask to look
at it piece of an order

3 brushes -

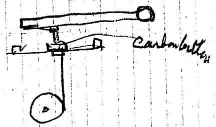


Switch make more or less
Contact of Realfr

moves brushes

Try 2 grms Uric acid in
test cell —

Try EMG Chalk under
oil to stop evaporation
see how long run
use no continuous current
thru it but only the
waves to save decomp
water —



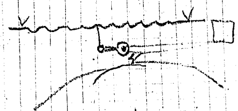
to Make True Microphone
& for amplifying phono

~~Dyer — why not act as agent
all over world & start
renting films etc.~~

Mix Gum Resin Sulphur &
then 4×6 — perhaps S will
Cause stuff to stick to Can

also. Try. Sulphur & Talcum
dip see if stick Can —
also Sulphur Talcum &
asbestos,

~~Dolly work on enamel
very long up —~~



to provide a friction slip joint like human ear to diminish excessive Vib + increase sensitiveness for overtones —

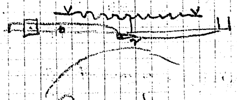
Weber to record our phones changing speed shouldn't we use fibre shoe

Goodwin Why not ship phones + Records direct to wagon dealers —

Sell CO Records by having list 30 25 20 + 15c

~~Wilson Howling up the 3 million [illegible] records having [illegible] —~~

New idea



Balanced wt.

Exactly balanced. the low medium gives overtones but big vibrations greatly diminished

Total Selections listed from
1902 To Sept 1 1910

Domestic	2	min	3408
Foreign	2	"	4760
Domestic	4		513
Foreign	4		793
Grand Op	2		70
"	4		58
			9602

Total Sales to Mch 1
1910
109 million

CO records since Feby 1904

Dom	1373
Foreign	773
Grand Op	27

Sept 10 have 65000 CO Records on hand — keeping them

Hyam -
Use amplifying Lever on
Recorder with 2" diam

Fred Ott get Motograph ready
that runs with Motor, rig up
make cylinder of Carb electrolyte —
Arc 1/4" Carbons + Induction Coil
arc end of funnel 1/8 hole close
to arc, Talk see if heard in telephone
if so try Motograph on it.

~~Write Mallory he better look
into Paint Biz since
July 26 we have sent
440 lbs Emery bits makes
7000 gals,~~

Test recent flake for
Iron — test each number
as Arthur gets them.

Goldstein to make $Ni(OH)_2$ with
Solid NaOH & Crystald $NiSO_4$ in a
mixer & keep at it till all are
over sulfate
also try mixing with Nitrate Ni

Reduce Fe by Zn from Sulphates

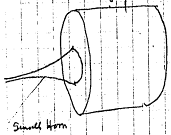
also try $FeSO_4$ + NaOH dry
Then dry it, pericolate & reduce by
H — try Ferric & also ferrous
perhaps anhydrous $FeSO_4$ propelled into fused NaOH
be best —

Fred Ott make moved to holder to
thinner Fe pocket than they make
now & force same amount Fe in
by heavier weight up to the limit
look up capacity per gram of the Fe
now on test that shows good results
from heavy tamp — think can raise
capacity 50% & get better curves with less Fe

See if the bursting Cells had
LiOH in in addition to the 10% KOH

Pierman

big Drum 3 ft dia 3 long
see if amplifies



Tell Higham reason disc louder higher
surface speed ball gets in —

Goldstein — Make some Cast Strontia
pure & fine — settle & use in micro
& make 1 or 2 cylinders —

Selling plan Cement = man go around offer
to insert name in local paper as architect & keep it
in with other good firms & specify E Cement,

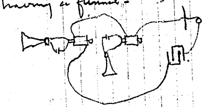
ditto Contractors of use E Cement, ditto
Sidewalk & block people & do same —

Chloride Ca. — wires immersed still
air blown thru by wind mill, H_2O
absorbed, then wind mill works
dynamos & distills off water
— arid regions — ~~Ships~~ burning glass
on case to distil water

On chalk when working smear over Paraffine oil or Vaseline thinned by Gasolene or Machine oil -

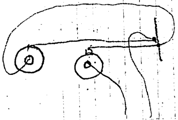
Immerse a wet chalk (working) down in Benzine -

Use 6 telephones in multiple also series Connected to one [illegible], Each phone having a funnel -



Emg Impulse for acoustics, hand tune

Use phone talk to Bell then to Emg & that to ~~Pb~~ Phono recorder - also use funnel and talk in it see loss



work in series also multiple -

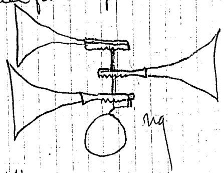
Make some Cylinders of Resin & Asbestos fibre for Petit to press Cast, or shape & turn to size

Try ordinary Rosin & Asbestos -

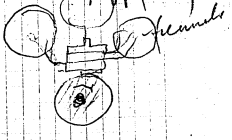
Try Gilsonite & Asbestos -

Try Asphalt (Gilsonite) etc Idra & asbestos

All for Cheap records -



This principle of sep. chambers & funnels but all clear connected should amplify greatly



Try 2 wc reducing $NiSO_4$ see if sheet good if so make smaller & 2 ditch bring up in H weld in thick [illegible] — make sheet in thick cheap —

~~Mallory Hero's adding [illegible] mean come over & give him some costs on aggregate & general costs above changes for sequence & costs of Cuts.~~

K Co Nitrite reagent for K — make up 2 tubes 5% Co in green or mean that we have & add 2 grms Nitrate K to Sol ditto 2 " Nitrite

---

~~Harry Miller — find out Value of my Mutual Life policy also if I can change it to all the children now — 1873~~

Emulsion of Gelatin & Turpentine Exposed to light should give ozone & ox the gelatin possibly if Turpentine add to photo plate it would be more sensitive to light

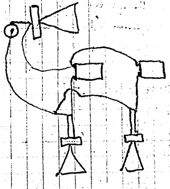
~~Chrisleman get [illegible] so can dip A B. then get Couple — from phono wag cleaning [illegible] to dip~~

also one Gray from Waverly London Town + 3 Red machine new shops after Weight test hat is made

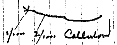
~~Hesler draw wheel full size & see how many knobs [illegible] when compressed~~ 1/4 3/8 1/2 & full

Mason why not buy 3/4 return on Circulating Elev at rolls 1/4 go up or 4 Elevators raising up to blowers instead S belt top stock house

Waterproofing go around get Painter use it —



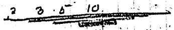
Piermann



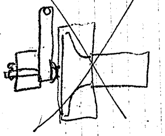
Fred Ott - Make $SrCO_3$ button diff amounts moisture. think that w/ trouble, packs closer by Lubrication also try dry -

Try Carb Potash + free KOH to wet

Use Mica built up dia

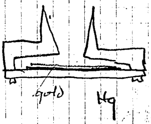


Make Carb Transmitter this



Ball Silver flat with Carbon on Ballon leaves Try Al, Tin, Lead Zn + press Lampblack in

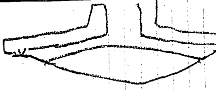
Try big Lampblack surface with Silver or gold foil

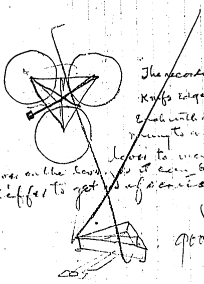


Very thin Silver foil smoked ~~[illegible]~~ + laid on + waxed around Edges - 6" round - possibly 2 of them in closed glass chamber

~~Piermann Walke make rubber ring Dome 002 dia - is Al secured if not must be~~

A button made of smoked foil Lampblk one laid on the other 10 disks then pressed a little,





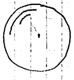
The records done a
Knife edge at ceramic
Each with lever
running to a recording
lever to increase the
power on the lever so it can be made
stiffer to get rid of scratch

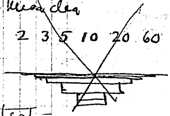
good

Vaseline castor oil + lampblack – $SrCO_3$ mixed to Cut very Easy also stiff to make record surface, very brittle cheap If cut chip goes off as powder + not tough + cut takes no power yet no scratch →

In Pathe reg make these dia

~~2 3 5 7 1~~ 2 3 5 10 20 60





+ test =

Get some China clay – White Kaolin – Fullers Earth, Zinc white, Carb lead, Kieselguhr

Wet diff powders + let them dry see if Cake together sufficient to record – dip glass tubes 1½ dia in wet stuff see if dry without cracking + if feasible – if can record, then gold plate

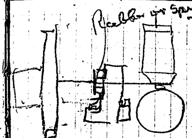
Use Paraffine or Vaseline till when Cold just hold together + not be too soft then melt + add powders + Cast record cylinders – better than Paraffine + Vaseline which are fibrous is either Castor or glycerine, – Try glucose, Camphor, Naphthaline, Wet powders with ~~acetate~~ Iodide Cadmium + other powders that will cement powder when it dries,

Plain washer best – must get free lumps + dirt, Cut fine

~~Wilson order no more master moulds electrotyped until after Record wagon Expt =~~

Try painting with a brush milk of $SrCO_3$ over a porous Cup + dry see if cracks when dry also in alcohol, Benzol, Ether — amyl acetate, also in some of these dissolve stearic acid + stearate of alumina Naphthalin & some amorphous substance.

~~See what Hopkins doing put him back on furnace —~~



Make dif dia stiffer — take strain off dia —

~~Lott Reduce Fe_2O_3 from works by producer gas from Record plant, keep H_2S out~~

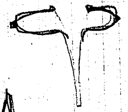
~~Goldstein, See if can purify Reg $FeSO_4$ by recrystallizing 2 or 3 times~~

grind up $FeSO_4$ + NaOH — work same as Ni + see if drier powdery. So can reduce by H,

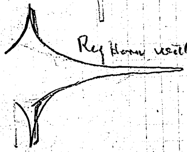
Make 2 flat pockets, Cd OH reduce to metal wash dry & reoxygenate —

Have motor + change gear of Lowing [illegible] so can get [illegible]
ditto of Electric

Wet with 1K KCl, $LiCl$, Na Sulfate
($LiOH$ KOH $NaOH$) Try Conc KOH.
$NaOH$ + Concentrated mix of all
3:
Wet with $SrOH$, $BaOH$, $CaOH$.
$ZnCl$ or then KOH, wet with
($SrCl$ $UrCl$ $CaCl$, $BaCl$ & then treat
with BiCarb K –

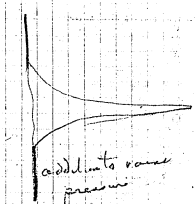


Reading Horn

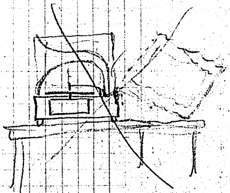


Reg Horn with chambers added

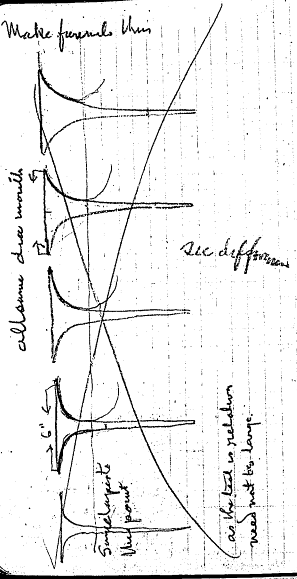
also



added to raise pressure



Make funnels thus


all same size mouth
see difference
6"
Single point
thin point
as the tail is gelatine
need not be large.

Patent sensitive ~~reproducer~~
Recorder — Smoke in Pat Office

Mallory = Better pay royalty on Limestone to me for Phila use — also ask how I stand on books with Rand, am I credited with interest etc —

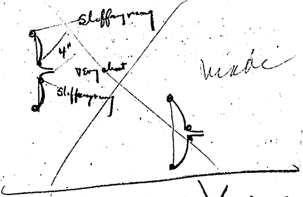
Gressly make some 1/1000 acetic acid film for recording.

Holland test bubble indicator on cell which don't go below volt & keep it well charged so its always > 0,

Burn some Sulfide Fe used for H S a/c of fire -

Set up a crate of 4 with new drops on & slop it well with KOH 10% & see how it acts — put in Holland Station Gallery to get heavy voltages —

Have Chrimlean drop can filled cold water see how it acts as that cray must dip them also loss heat with insulated drops on —


Stiffening ring
4"
Very short
Stiffening ring
made

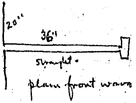
~~Fred Ott Split wide plating on Chalk Top into 3 parts so all can touch~~ —

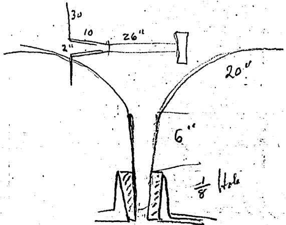
~~Vacuum Cleaner suction in big garage to clean Lap Cells~~ — Bunsen filter pump

~~Drop millionths Cell on Bergmann of pure metals~~ —

~~Chlorinate some of GWA Resin to get rid free phenol~~

~~Make 1/2 lb $FeSO_4$ NaOH on rolls – percolate + roast, acc of fume – reduce in H – If OK make 2 lbs after roast send to Ralph~~ –

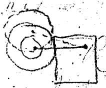

20"
36"
Straight.
plain front wave


30
10
26"
2"
20"
6"
1/8 Hole

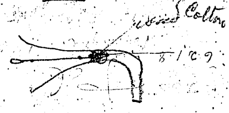
Mallory look up oil question Crude now very cheap

No 1

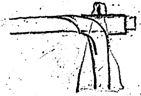
No 2



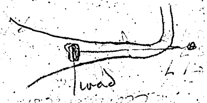
No 3

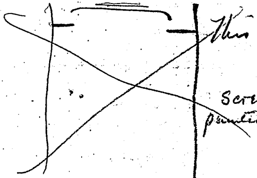


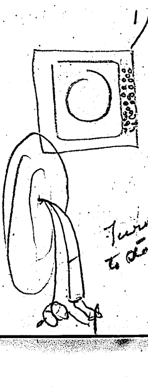
No 4



No 5




Thin
Screen painted

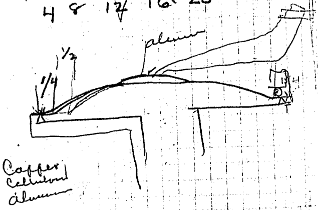

1/32, punched metal 1/4" hole & painted —
Turn these edges to stop vibrating

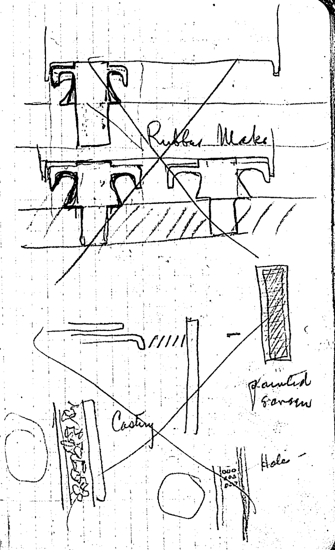
Dodge make a tray with 1A4
with Bergmans device →
~~also these~~ for drop feet.

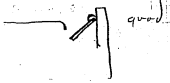
Walker – if break loaned record
we take one of theirs instead, or 15¢

Micadia

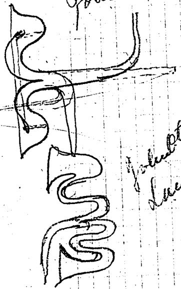
2	3	4	5	6
2	4	6	8	10
2	6	12	18	24
3	5	7	9	11
3	6	9	12	15
4	6	8	10	12
4	8	12	16	20


alum
1/2
1/4
13
Copper
Celluloid
Aluminum

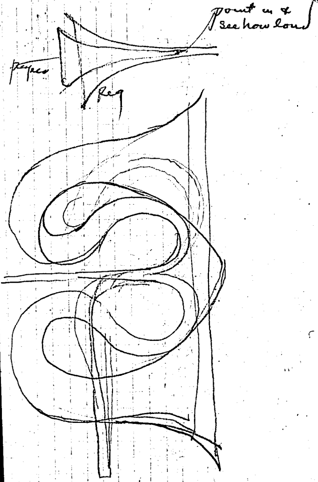

Rubber Make
Casting
Knurled screw
Hole



John Ott



John Ott —
Layout


point in &
see how loud
Repro
Reg

ask Holland if moving Apparatus
any good-

Java Resin Chlorinated 1 hour
3 grms 3 grms Tetranap 1.2 grms
very fine asbestos floated. - Then fluid would
work fine in Spinning — Tetra crystals out,
Turns yellow. Its very hard - nail cant
scratch it - pretty strong - 10 times stronger
than reg Moulded record

3 = 1 Hour Chld Resin
3 Tetranap
2 Asbestos finest —
Little too thick but after stirring it
was fairly liquid & poured it out but
too sluggish — Think 1½ grms is OK
of Asbestos. The button is very hard
& stronger — Cant break it. Cuts better
Think this could be worked but 1½ probably
be better — Cant use any less Tetra
too thick — Its very difficult to
Cut button. Think it would have great
wearing capacity & of Asbestos with
mixed would not break out on deep
dents on up hill end —

3 Resin Chlorinated 5 hours
3 Tetra Nap } It dont bubble like
1½ asbestos — } 1 hour Resin.
fairly thin & would be more cured &
mix it better = it would work
ok I think =

1 minute after stirring in battery
jar of Tryoke levigated asbestos dipped
out pint — filtered, then stirred it up
keeping jar full water & 1 minute after
stirring took another pint & so on only
it got little thin (10) water — Under
Micros its ok but not as good as the very
fine - Think 1½ minute will be OK

3 1 Hour Chld Resin
4 Tetranap
1½ 1 minute asbestos - its
much longer fibre, but when
liquid hot enough to Keep
resin in Tetra it goes in by
stirring — liquid OK for
Spinning thin enough poured
all out from dish —

Notice must Melt Resin
add little Tetra till
gases little & browns then
add all of Tetra

after adding asbestos it chills
the Resin & it separates from
tetra but as heat gets up
it goes together OK -

Button hard to cut cant scratch
with nail - cant break button.

3 1 Hour Chl'd Resin
5 Tetranap
1 1/2 Asbestos 1 minute

pours thin but must be hot to
keep tetra in but is OK
think too much tetra, yet settled
out on top of button. If tetra
about right, only little tetra
settled out on edge. it would work
OK in opening - but wood like
hard - breaks fairly easy
4 Tetra minimum

3 1 Hour
4 Tetra } works good
1 1/2 as

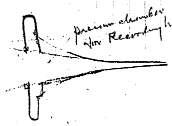
about 3 tetra or 3 1/2 probly best
to 3 Resin 1 Hour pours hot
& 1 1/2 min asbestos

Regular Resin is better than
Chlorinated resin - 3 Resin
3 1/2 @ 4 Tetra best with
proper asbestos -

~~Cook BS till it hardens
then mix with Mason also
with good Resin & Tetra
also BS & Resin alone ->
Try Resin & Castor oil with tetra
also linseed.~~

~~Holland about trying Reg
Cells with as much L.OH as can
stand for 3 runs, each run have
fresh L, then change to
21 + 90' L.OH ->~~

Speak Wilson Dyer Dolbeer & Gretz abt Special unbreakable record hard material — how abt price 60c on all records which show how wear to be made in the special material —



~~Dyer~~ Legal Dept — patent on new recorder — also Cottonball modification —

5 Shellac
4 Zelva
2.5 Rosin
5 1½ mm [illegible] 4 [illegible]
if well mixed,

Try BS ~~hard~~

Premium make 1/100 diam 1/32 flat Edge instead 1/16 + try again —

~~Try BS =~~

~~Petit Make reg moulded record + coat with 605 Shellac Zelva Zn & press —~~

~~See if rubber mandrel on Gallow Bulling jar being made~~

~~Put up 2 tubes 3 hr run~~
~~3 hr charge to 21K2~~
~~Dip 4 hr 5 hr 6 hr~~

~~also dip dry tube in Cone hi then in 21K2 hr~~
~~ditto in 3 4 5 + 6~~

Fred Ott mix chalk asbestos, etc
with porcelain binders Rosin
asphalt etc hot to make base
to use instead of paper B S.
Shellac in Sal soda
Moulan —

5 Rosin (pine) &
5 precip chalk
for base can pour it
when well mixed &
hot about same as
over Shellac Tetra Zn
think 6 Cart Can will
work —

5 Rosin
4 Bag asbestos — thin
Enough - not strong
Enough but better | than

the chalk — it is much
stronger than amberol.
little sticky —

5 Rosin 5 bag asbestos
little thick but runs
out of dish & makes
nearly flat button
Think this can be
worked OK
Cut hard - very strong
& OK - little sticky

For Base for Patts used 32 oz
Rosin 30 oz Asbestos sifted
thru 40 Mesh - its not
extra strong think can
use Equal quantities
of Asbestos & Rosin

~~Stix to grease mould had put paper think Can use a wash of grafite & benzol etc while rotating & then inject the Rosin Asbestos~~

Mould Moulan blanks for Petit
Wash Rosin mould with ~~Benz~~
Benzol grafite instead using paper
Mould Moulan, blow paper
fibre in while warm in mould
Try Sulphur instead Rosin
ditto Sulphur + Asbestos "
Sulphur + Tetra do Asbestos

Wax 12c	1.74.00	174 00
Cartons labelled	.99 25	99 25
Sundries	.12.00	12 00
Talent	1.81 09	
Labor	1.65 50	1 65 50
	.45 00	45 00
Freight	.51.00	51 00
pkg boxing	1.22 00	5.46.75
Advertising	1.52.00	
Genl Ex	10.3/100	

200 pressing moulds
2 accumulators
6 melting pots
4 paper dissolvers
6 melting kettles
3 Strainers
6 Ringing mixers

25000
20 hours

600 lbs Lac
100 Tetra
Stearate Zn

73 Bottom of cell Rabbet
maintains to pound
1^{00} lb = 3c for A4 cell

Mould test record with
some chalk in
ditto blowing in —
— " Shellac thin Montan

~~Grafilizers 1/2 doz dif
4 mm [illegible] of speaker
[illegible] —~~

~~Run disc & shave a
mark with Eye glass
see if it shifts —~~

~~John Ott design a
grafilizer for 25 secs
Records 20 hours —~~

Rig up [illegible]
speaker with bag
suspension to keep
grafilizer ~~clean~~

~~float French chalk &
try that —~~

~~float asbestos & try
that on surface~~

~~ask Legal Dept if
patented grafilizing
Records if any
body else has —
if not claim new —
article mfr grafilized
Records~~

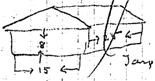
~~Make several grades of
grafite thick coarser med
work with test,~~

~~All with grafilized a Lac
Petit compound —~~

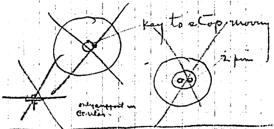
Dally

~~Get Tray of 6 Cells fit up with Rubber supports put on a truck & put buffer on & run against solid stone~~

Heater drawing from work Cloth House in yard



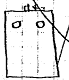
8
15
2.5
Tarpaulin -



key to stop moving
2 pin
only support in center -

Look up Vacuum fillers for Patent filter Shellac

Possibly 2 side holders in A8

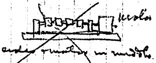


instead of 1

Weigh the ~~Rubber~~ insulators under Cell =

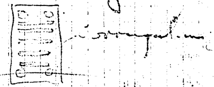
qua - why not load blank with heavy stuff.

~~Rectifier -~~

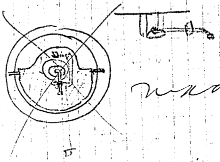


~~not both ends running in middle.~~

Corrugate bottom of battery Cans to stiffen & preserve flat, ∿∿∿∿ Except where buttons go -



corrugations



made

Belgian blox
Wood blox
Paving brick
Jarvia
BS
Viscose + sawdust. also gravel.
Cast iron chips
Chilled iron blox
Asphalt,
Ledd,
Rosin Crude Pet + sands 1/4 stuff -

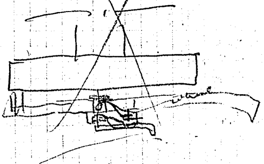
Have Altona boy look under Micro see if any fine peaory have needles

Put phenol in Montan Record then act on it by gas formaldehyde + sunlight to harden

fix up standard Crate for A8 for Car lighting - high insulation -

Ask Brush if he can give one or more in heights - ditto Field

Pierman with 1 1/8 dome record use 1/16 steel, + attach without lever arm to reduce amplitude -



Advertise Ideal 10% + in print mention all the days outing & Pa Tour giving Mileage
Cleveland Chicago Denver
Boston Phila Camden
Buffalo Pittsburgh Cincinnati

Dont fail to use the grafite bag rubber on record.

Dyer - McCoy go to Victor & Bridgeport Count —

When get battery stock transfer ~~Control~~ to Mina for 1 million —

~~Give her 3/4 of Cement bonds~~

Give her more Cement bonds — & 250 000 Phono wks stock

See How mfg Co stock stands transfer sufficient Mina Control

Have 9 Wax man cast 3 or 4 records ~~of~~ harder Montan — a grafelige.

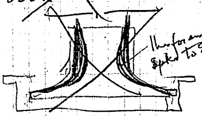
~~Get 2 Saph — Sharper~~

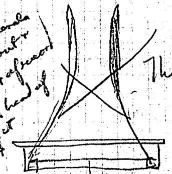
~~See Dodge & have him Mould my Tough 3 or 4 grades of Montan~~

~~find out how Smith got along~~

~~See How Pearman Stiff spring worked~~

~~Give Walter Miller Advt about Stroh Violin in this book —~~





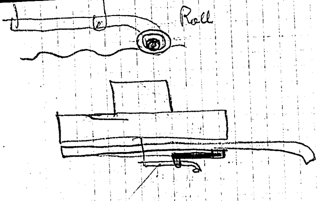
Have an umbrella funnelled out & try wear of record

Think friction head of ear wearing it

spd in Mica dia

2, 3, 5, 8 knife edge

~~See Weber & find Idea of ball use; think too large dia cuts off top notes~~



make leverage 2½ to 3 to 1 to allow for spring of fulcrum use very stiff spring - This worked at Meyers on other type, something in it to quick & wont dont jump after on record I think -

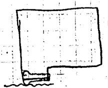
Louis Ott, get some good $FeSO_4$ from Silver Lake dry soda ~~Also~~ Chilean Nit - Dry then decantation dry & reduce by producer gas at Works, or Coal gas -

Rent out Sparkg & lighting batter Chgd from garages -

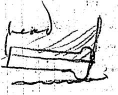
JWA why not make wax (heat deep water in Montan so bubbles get out -

~~Mould~~ Cut in Wotlam dog records with 10½ threads inch to test feed -

Use test record with Spkr on a Recorder thread to get 10½ × 100


Why not

or back up head

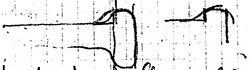


Measure of different shrinkage on test records 200 per inch

~~See Baker also DeWint & Bailey
see if can't get more length
ditto Lansden & Cleveland
want 1/2" & 1/2 more width~~

Go to Bloomfield or ask Stokes
if he can put hard rubber over
a pin or screw —

Weber make Zephyr [illegible]

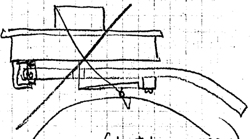


Reg Zephyr turned off on each side
to .006 —

Get discarded Mould with
Loud part 4 men &
pour in Tower dif materials

~~Mould record with phenol
in so it harden while
spinning or use Java Resin
& harden after moulding
with Formal.~~

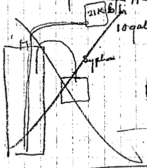
Got 53 moved No 70 have
Petit press a regular Moulan
Record wax — & to see if its
harder — also Lac to get wear test button
& ball —



Let it down on record
& then put bank in so
it just puts a little
tension on disc

This has long swing

11



Holland

~~See if 10% Idrophac can be
put in Moulan of a spun
a Record~~

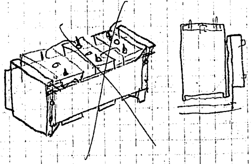
Get old loud record moved & spin a Montan Crude unit for wear test, Spin other stuff —

Spin a tetralac with lots of Tetra ~~$~~ 75 Lac 25 Tetra 60 Lac 40 30 Lac 70 Tetra — Try in small dish first to get hardness —

Patch pack powdered Deco salt around a tetralac record, thick & thin paper —

Dodge about flat cap at bottom of cell —

Ask Stokes to send pound of Hardrubber mixture ready to mould & Vulcanize — Try it on a beam



Tell Dodge wax dept Tetrachlor Carbon 150 Kilos —

When get Spkr OK sure on 4 min get a ball point & see what wear is with perfect tracking ball shaped wear record loss —

Try Hard Cerbian / Gilsonite Etc with Tetra wax to get hard record

Get Salesphone in NY since Electric adv't Started —

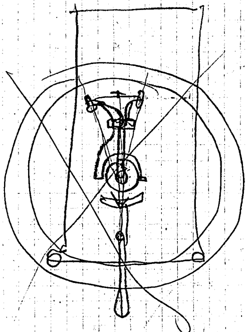
Why not run kilns 7 days but at 22@20 bbls hour to save coal —

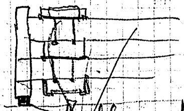
Colloidal precip for Emugraph for insulation $BaOH_2$ alcohol & H_2SO_4 - Dry under less pressure than the atmos & not over 40 C — Coagulating by Electrolytes

Drop threads of GWA Resin in formaldehyde

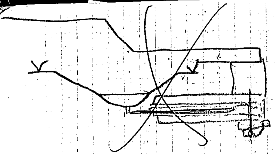
ditto with Eugenol saturated with Hexamethylenetetramine Hot or glycerine hot.

for Silk — test a drawn oil Resin ~~thread~~ by hand — on a GWA Resin surface dissolve 4-6 in the highest BP solvent can find then pour over to harden superficially



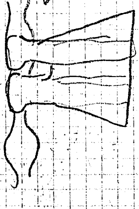


Rubber insulator for Battery tray



Run 200 times on a smooth record to see wear where there is no vibration

~~Send for Ackerman & tell him about Tetrachlorphat paint for his new work~~

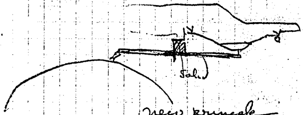


2 together

~~test all the [illegible] / BS for gold dissolve 50% of [illegible] different asphalts in [illegible] alcohol & then chlorinate [illegible]~~

~~Boil Tetranap in alcoholic KOH, or NaOH,~~

~~Tell Premier to go to double surface speed & have his recording phone fixed up —~~

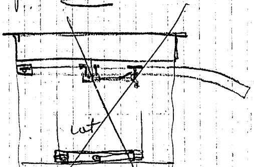


new principle like fork -

~~Greeley - Acetocel Chloroform & Resins to stiffen - Edison Try various best acetocellulose solvent to make stiffer .015" film than .001~~

~~Oxidize Asphalt by Nitric till it don't melt — then Chloroform it~~

~~Ask Dodge if he is shipping plates, green & flake to Bergmann —~~



~~Rock this to thrown~~

mount the two balls on reproducer lever .005 only

Dry bat — 2½ × 6

15 @ 20 amp hours at 100 milamp rate —

~~Pickman on depositing on Carbon or Ni, Manganese from Nitrate sol — Dr Hand for Opal ballery — NHCl Ethylsulphate, also to find a better solvent for Zn than NH4Cl — —~~

~~Make a wear test on 2 min Moulding with Reg reproducer for Kraus preparation,~~

15 Shellac
5 Zelva
½ Zn Stearate.

Pistol Resin

~~Make Edgel gauges for Walter Miller for testing his records light cut also —~~

~~See [illegible] Walter Miller about Variation in moulds size & taper~~

Try ~~Shyrost~~ Cumol
Shyrost in a Hydrocarbon
Try oils (Mineral)

Mix high ~~[illegible]~~ Coke 3 which one says with luminous Coal Tar + Carbons for porous Anode for MnO_2 in dry Cell —

Wagon idea moving pictures to farm towns, 150 to 500 people once week away from RRs —

Rig up Motor with make & Break & Charge reg cells (Dual cells) at Double the rate, but open the circuit ½ the time, This might prevent Electric Osmosis, throw KOH out of pores of $Ni(OH)_2$ — See Holland — This is important Expt.
Try if Fe has capacity increased this way = 60 seconds 4 or 5 breaks one minute

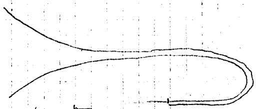
Change very old bat tubes this way

After new Crate test OK make one for B4. Make all models at Lab for all crates & dope
Hold originals as models & make gauges — also RR Crate
Make wet & dust test for leakage
When new Reg-dor OK make jarring test —

Hertz make Squirt die to squirt Eucqueal blanks —

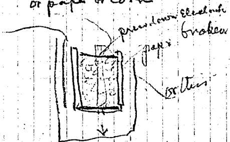
See Dyer Millen etc & have Mussleman come over for a talk —

See if Chalk will go in ~~Montan~~ — OK good
Try Gilsonite Chalk & Eucqueal —



Long taper to soften the sharpness

Smaller dia Dia for disk to make go easier
Very thin rubber between lever & dia or paper or cork



~~Dodge make me some records less soft in several degrees for wear test - think records are softer than at first -~~

~~Try chemical [illegible] records [illegible]~~

~~Archer - make 3 tubes 20 22 24 - 27 30 33. to test loading & see Capacity - also Loading scheme 20 22 24 27 30 33 —~~

Rig up Spinning Lathe in Music room & bench for melting & working with Waxes - develope a deep cut ready wax & Petit 20 below zero [illegible] & a tougher working

Pierman, test new air 2flo on very weak records

~~Iodine in a solvent should take H from asphalt by heat to condense it & also try powdered sulphur, to decomp by heat to condense.~~

2 Knob wheel for truck
4 spring to Knob —

Reinforced Cement Amberola Cabinet -

Try some 4c shellac substitute for discs -
Have Glen make press
Velor disk & try wear
ie send over we try it

~~Go for diff disc diaphms~~
~~Too slow -~~

Continuous tests of Tubes
in Ice chest only deciding
at 34 about using
dif Chems

When get spinning Lathe make
lot of ~~[illegible]~~
Reg Wax mould with
Chalk also with some
Iso, Engraved + other things —
test for wear

Speak Goldstein about putting
Manganese Hydrox in cell
to Keep acidity down —

See if Disc can be speeded to
140 for spcl records

Chalk telephone wet with Lith do KOH
in which is dissolved Colloids, or held
in suspension

get a new book —

Fe Ice chest Expt 5 grm cake Fe
4 Nickels —

21 K 2 Li — | 21 K 2 Li 1 grm KCl
23 K 2 Li | 21 K 2 Li 3 grm KCl
25 K 2 Li | 21 K 2 Li 1 " BrCl
27 K 2 Li | 21 K 2 Li 3 " BrCl
21 K 2 Li 5 " KCl
16 K 4 NaOH 2 Li —
all above with B1 tubes —

168 is spoilt by a miserable weak accompaniment
40016 is very much better accompanied louder & brass some relation to volume of sound of the singer. Most of our accompaniments sound as the singer before you & orchestra 8 miles distance —

40016 by Sylva would be good on disc —

190 Lazaro — OK — but think Sylva better — accomp not loud enuf fine record for disc — Lazaro has more music in his offerings than all others —

173 scarcely hear accomp Rotten in 1st part
Line ng

40021 — accomp could be little louder OK

Not room enough back end drawers — Taps too light on records it pulls them out without thumbnail on edge, if pulled out can't get back —
Altogether a rotten job —
Records so high without perfectly level catch Top — ?

35009 — as a specimen of pyrotechnique if you can get this on disc perfect you have the Vic skinned & nailed to the barn door think Sylva can do it better but Kurz is pretty good — its no tune but pure pyro

513 band should think be fine with Big Orchestra

209 OK - Band - How abt orchestra
160 OK band " "
8 - OK in orchestra

How about Overtures since we have more room on disc

577 OK

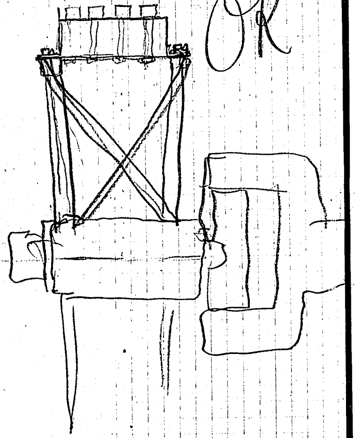
381 might be good on disc if person was OK —

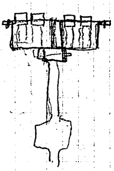
330 OK —

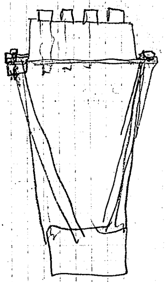
544 - good possibly Violoncello instead Harp better there are several serenades by big Composers one of which is better than this —

Photo for Steinmetz:

Ok





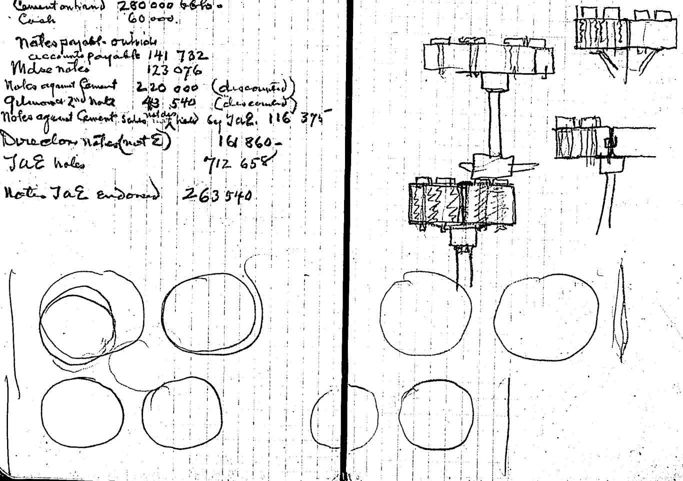


EPC

notes rec'bl	22.106	
Acct "	206 754	
Cement on hand	280 000 bbls.	
Cash	60 000.	
Notes payable outside		
accounts payable	141 732	
Mdse notes	123 076	
Notes against Cement	220 000	(discounted)
Gilmore 2nd note	43 540	(discounted)
Notes against Cement sales not dis held by TAE.	116 375	
Directors notes (not E)	161 860 -	
TAE notes	712 658	
Notes TAE endorsed	263 540	

Lansden Sales

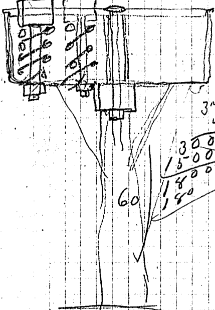
Week ending June 26	$ 12.086
" " July 3	913



20 210 | 300 (1428
210
900
600
6200
1800

250
1277
375

60



375
48
3000
1500
1800
180
(300
60

Make Arval record to be [illegible]
Sylvia [illegible]

365 Fair

117 – fair for Piano air –

93 fair if by a large orchestra

40024 – Blanchard. accompaniment should be louder good record for disk wants more defined (10) volume in the orchestra –

Speak to Weber no margin put records in clips in drawers bottom boxes worn out

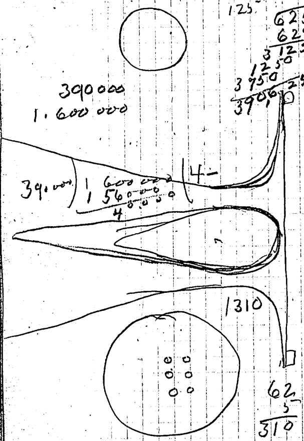
185 Arval fine song, fine, thin bass time [illegible] [illegible] Can this be sung duet Piccione try air –

Blanche Arral [illegible] too weak & too strong – Sylva OK –

40015 Delmar too near – Soprano – OK if she had a decent tone –

194 Sylvia OK –

125 125
125 5
625
625
3125
1250
3750
390625



390000
1,600,000

390000) 1600000 (4
1560000
40000

1310

62
5
310

1300
1300
390000
1300
1690000

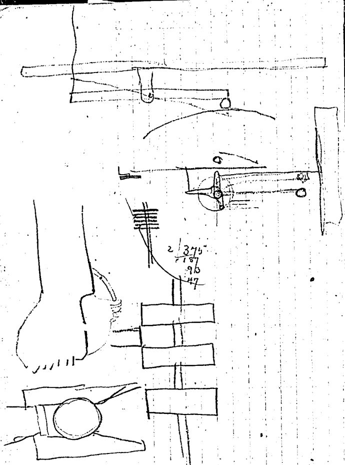
100 lbs NaOH gives 349 lbs $Na_2SO_4 10 H_2O$
100 lbs " need 86.3 " NaOH.
100 lbs " need 100 " H_2SO_4

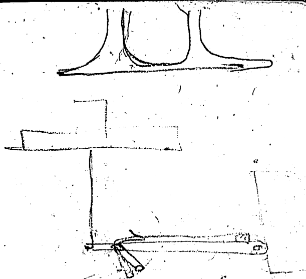
24) 240 (10

12
20
240

6 15

24
6
144
10
720
1440
2160
240
19.2





Amorphous chemistry

glass
soap
shoes
Hats
Cloth
porcelain
Meats
Bacteria
Flour
wood
paper
glue
Colors Dyes

Paints, Lacquers
Rubber
prints
Celluloid
Cements
Type Metal.
Canned goods -
Buttons,
Varnish
gums

750 135 100 miles
50 miles 9 to 66

12
1 [illegible]
1 Coat 25.00
4 [illegible]
2 pkg
2 [illegible]
2 [illegible]

25

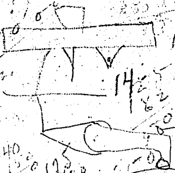
2 | 750
375

2 | 273
136
69

2 | 173
86
59

2 to 10 general exp
35
48
40

37 5000
75
250
50
50
(5



11
14 140 00
84 00
173

125
1075
140
120 60
750
774 80
21

South Egmont

15.00
44
6000
6000

17

14.80
44
20

15.00
6.60
21.60
1.20
4.320
21.60
17 | 25.92

153

750 | 13000
750
5500
5250
250

20.00
18.75
15.00
300
1775